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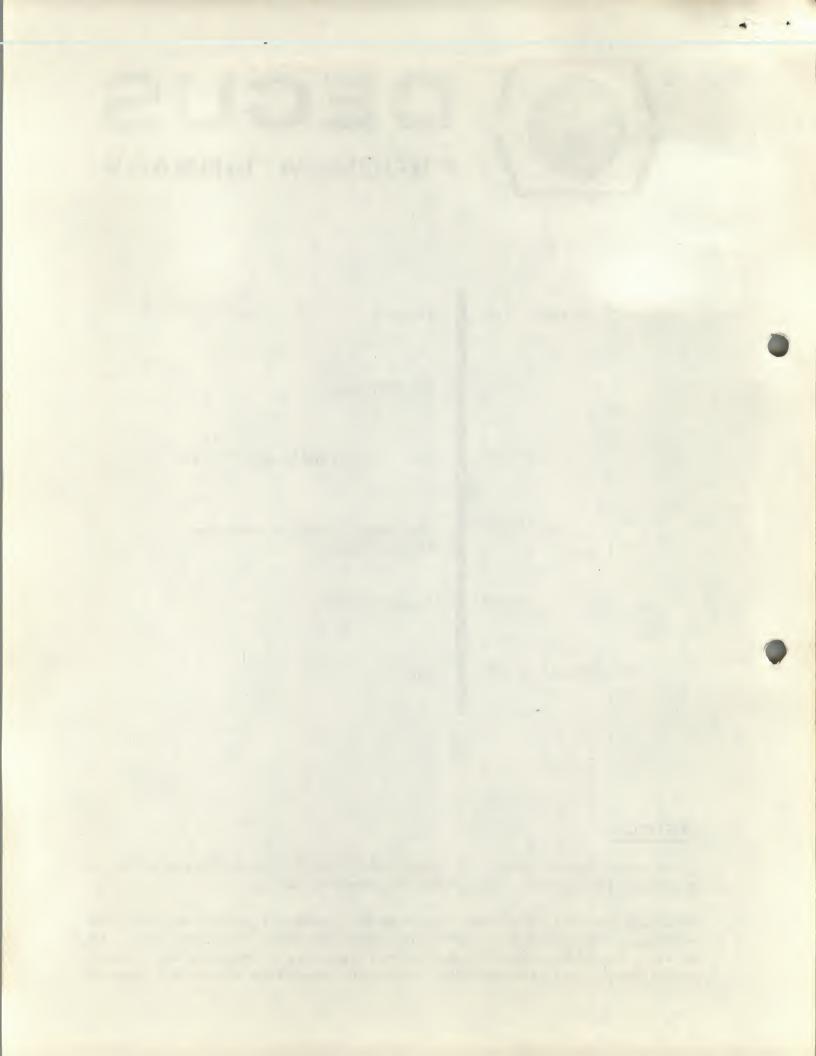|	
DECUS NO.	8-646
TITLE	DECSYSTEM-8
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DATE	August 10, 1973
SOURCE LANGUAGE	PAL

ATTENTION

```
DDDDD      EEEEE    CCCCC
DD  DD     EE       CC
DD   DD    EEEE     CC
DD   DD    EE       CC
DD  DD     EE       CC
DDDDD      EEEEEEE  CCCCC
```

```
SSSS  YY YY   SSSS   TTTTT  EEEEE    MM    MM
SS    YY YY  SS        TT   EE       MMM  MMM
 SSS   YYYY   SSS      TT   EEEE     MM M MM
   SS   YY      SS     TT   EE       MM    MM
   SS   YY      SS     TT   EE       MM    MM
SSSS    YY   SSSS      TT   EEEEEE   MM    MM
```

```
88888
88   88
88   88
 88888
88   88
88   88
88888
```

MONITOR COMMAND EXTENSIONS IN PS/8
VERSION MARK 1.2

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SPECIAL CHARACTERS USED IN THIS WRITEUP:

THE SPECIAL CHARACTERS ANGLE BRACKETS (<>), AND SQUARE BRACKETS ([]) ARE USED TO SEPARATE WORDS FROM THOSE AROUND THEM. TERMS SURROUNDED IN ANGLE BRACKETS WILL INDICATE REQUIRED TERMS, AND SQUARE BRACKETS WILL ENCLOSE OPTIONAL TERMS. E.G. IF THERE IS A DEFAULT DEVICE THEN A FILENAME MAY BE SPECIFIED BY:
[DEV:]<NAME.EX>.

NOTE TO USERS

THIS DOCUMENT AND THIS TAPE IS AN ATTEMPT AT CIRCULATING DECSYSTEM-8 AMONG USERS. PLEASE READ THE INFORMATION AT THE END OF THIS WRITE-UP REGARDING YOUR RESPONSIBILITIES OF RECEIVING THIS TAPE. DECSYSTEM-8 IS A USER SUPPORTED SYSTEM WITH ALL SOURCES AVAILABLE TO THE USERS. THERE ARE THREE TAPES INVOLVED WITH THE DISTRIBUTION: TAPE 1 CONTAINS FILES NECESSARY TO IMPLEMENT DECSYSTEM-8 ON YOUR SYSTEM AND DOCUMENTATION FILES. TAPE 2 CONTAINS SOURCES OF ALL COMPONENTS OF THE SYSTEM, EXCLUDING THE KEYBOARD MONITOR AND COMMAND DECODER. TAPE 3 CONTAINS THE LATTER SOURCES. IN ORDER TO MAINTAIN A BENEVOLENT ATMOSPHERE WITH THE "HOME OFFICE", TAPE 1 IS DISTRIBUTED WITHOUT CONFIG OR BUILD INTENTIONALLY. THUS FOR THIS SYSTEM TO BE USEFUL THE USER MUST HAVE ALREADY OBTAINED THE PS/8 OR OS/8 SYSTEM FROM DEC. THE SOURCES OF PS8LGC AND HASPCD, ON TAPE 3, ARE A LITTLE HARDER TO REGULATE, SINCE THE USER MAY NOT HAVE PURCHASED THE PS/8 SOURCES. CONSEQUENTLY THESE SOURCES MAY BE OBTAINED BY PROOF OF PURCHASE OF THE PS/8 OR OS/8 SOURCES.

ACKNOWLEDGEMENTS

THIS WORK IS THE BRAIN-CHILD OF JOHN COVERT, WITH DEVELOPMENT PARTIALLY PAYED FOR BY THE SCHOOL OF INFORMATION AND COMPUTER SCIENCE AT THE GEORGIA INSTITUTE OF TECHNOLOGY. HIS WORK HAS BEEN SO WELL RECEIVED THAT MANY USERS HAVE MADE SOME MODIFICATION TO HIS ORIGINAL CODING. HENCE THERE ARE MAY PERSONS WHICH SHOULD BE ACKNOWLEDGED AS CONTRIBUTING TO DECSYSTEM-8. I HOPE THAT, FOR ONCE, THE USER COMMUNITY WILL NOT GET EMBROILED IN THE "WHO GETS CREDIT" BATTLE RESULTING FROM MANY PERSONS CONTRIBUTING TO DECSYSTEM-8 IN AN ATTEMPT TO CONTINUALLY UPGRADE THE SYSTEM. ONE MUST REMEMBER, AT THIS POINT, THAT DECSYSTEM-8 IS SOLELY USER SUPPORTED. AS NEW ADDITIONS ARE MADE RECOGNITION WILL BE GIVEN ALONG WITH THE ADDITIONS. THERE IS A LIST OF CONTRIBUTORS AT THE END OF THIS TAPE TO GIVE APPROPRIATE ACKNOWLEDGEMENT.

VERSIONS

THE VERSION "MARK NN.NN" ASSOCIATED WITH A PARTICULAR RELEASE OF DECSYSTEM-8 HAS THE FOLLOWING MEANNING. THE NUMBER TO THE LEFT OF THE "." IS THE VERSION NUMBER, AND IS ASSOCIATED WITH THE MONITOR (THE INVISIBLE PORTION OF THE SYSTEM). THE NUMBER TO THE RIGHT OF THE "." IS THE RELEASE NUMBER, AND CHANGES WITH EACH OFFICIAL RE-RELEASE OF ANY PORTION OF THE SYSTEM. WHEN REQUESTING UPDATES FROM THE AUTHORS, PLEASE SPECIFY THE "MARK" NUMBER OF THE VERSION YOU ARE CURRENTLY USING.

UPDATES:

8/10/73

RELEASE OF MARK 1.2

/10/73

IMPLEMENTATION OF PARAMETER BLOCK DEPENDENCE. ALSO SQUASH AND ZERO COMMANDS. (DEW)

7/7/73

    SOME FURTHER BUGS IN DIRECT WERE CORRECTED. SOME FIXES WERE
MADE IN COMPILE, DATE, UMOUNT, AND DIRECT TO ALLOW RUNNING ON
CLASSIC-8'S AND LINC-8'S (THE OLD IAC AND ROTATE PROBLEM).

6/28/73

    COMPILE WAS FURTER MODIFIED TO INCLUDE THE HELP AND LIST
COMMANDS (DEW).

6/1/73

    THE PROGRAM UMOUNT WAS MODIFIED TO IMPLEMENT THE COPY AND
COPD COMMANDS. THESE COMMANDS ALLOW COPYING MULTIPLE FILES
BETWEEN NON-SYSTEM DEVICES. THE COPD COMMAND IS THE "DANGEROUS"
MODE OF COPYING AS IN FI RD AND FI FD (DEW).

5/10/72

    THE ROUTINE DATE WAS MODIFIED TO ALLOW CONDITIONAL ASSEMBLY
FOR NON-EAE MACHINES. ALSO RE-ORIGINED TO ALLOW USE OF LESS SPACE
ON SYS:(JRC).

    UMOUNT WAS MODIFIED TO IMPLIMENT THE FILE FD AND FILE RD
OPTIONS WHICH DO THE DIRECTORY WORK AT THE BEGINNING OF A
TRANSFER. THIS SHOULD BE MUCH FASTER FOR DECTAPE OR LINCTAPE
TRANSFERS (JRC).

    A COMPLETELY NEW DIRECT COMMAND, BY HM, HAS BEEN ACCEPTED
INTO DECSYSTEM-8, FAR SUPERIOR TO OLD COMMANDS. MODIFIED BY JRC
TO CONFORM TO DECSYSTEM-8 STANDARDS. ALSO THERE ARE CONDITIONAL
ASSEMBLIES TO ALLOW OUTPUT TO THE KV8/I DISPLAY BY JRC.

    SMALL CHANGES WERE MADE TO COMPIL SO THAT ↑C WILL TERMINATE
ERROR MESSAGE TYPEOUT (DEW).

    THE TECO AND MAKE COMMANDS WERE DISCOVERED NOT TO WORK ON 12K
MACHINES. A MODIFICATION TO THE STARTUP CODE SHOULD CORRECT THIS
PROBLEM. THIS HAS NOT BEEN TESTED FOR THE LACK OF 12K. PLEASE
INFORM DEW OR JRC IF THE PROBLEM HAS BEEN CORRECTED. - DEW

4/25/73

    SOME MAJOR UPDATES AND IMPROVEMENTS BY DEW. THESE CHANGES
MAINLY EFFECT THE PROGRAM COMPIL.SV. MOST OF THE EXTENDED
COMMANDS WERE CHANGED TO DEFAULT TO DSK: INSTEAD OF SYS:,
EXTENTIONS WERE MADE TO THE EDIT AND TECO COMMANDS, .COMPILE WAS
MODIFIED TO ALLOW MULTIPLE INPUT FILES, AND HASP WAS EXTENDED.

2/1/73

THE ORIGINAL CREATION OF THIS DOCUMENT.   RELEASE OF MARK 1.1

INTRODUCTION:

THE PS/8 OPERATING SYSTEM FOR PDP/8 SERIES COMPUTERS HAS BEEN DEMONSTRATED TO BE A POWERFUL SINGLE USER SYSTEM FOR PROGRAM DEVELOPMENT IN THE SMALL COMPUTER ENVIRONMENT. IT IS PATTERNED AFTER THE PDP/10 OPERATING SYSTEM IN MUCH OF ITS SYNTACTICAL INTERACTION WITH THE USER. ONE MAJOR LIMITATION OF THE ORIGINAL PS/8 AND SUBSEQUENT OS/8 SYSTEM IS THE LIMITED NUMBER OF MONITOR ("." MODE) COMMANDS AVAILABLE TO THE USER, AND THE FACT THAT THESE COMMANDS ARE ARE NOT USER-EXPANDABLE. THIS PACKAGE, DECSYSTEM-8, ADDS MANY OF THE PDP/10 OPERATING SYSTEM FEATURES TO THE PS/8 SYSTEM, INCLUDING THE CAPABILITY OF FURTHER EXPANSION OF THE MONITOR COMMAND SET, THE LOGON AND KJOB (KILL JOB) COMMANDS, AND THE COMPILE COMMAND FOR SHORTHAND CALLS TO THE STANDARD LANGUAGE PROCESSORS ON THE SYSTEM. "-THE PHILOSOPY OF THE ADDITIONS TO THE SYSTEM WAS TO KEEP AS MUCH COMPATIBILITY BETWEEN THE PDP/10 OPERATING SYSTEM AND THE PS/8 SYSTEM AS POSSIBLE. IN SOME CASES, THE COMMAND SYNTAXES USED ARE NOT OPTIMUM, BUT ARE PDP/10 COMPATIBLE. USERS WHO USE BOTH THE PDP/10 AND THE PS/8 SYSTEMS ON A DAY-BY-DAY BASIS WILL BE ABLE TO CONVERSE WITH BOTH SYSTEMS WITH A MINIMUM OF CONSIDERATION OF THE DIFFERENCES IN COMMAND SYNTAXES.

THE INTERNALS OF THE CODING HAVE BEEN ARRANGED SO THAT THERE ARE NO INCOMPATIBILITIES WITH "STANDARD" PS/8 OR OS/8 PROGRAMS. INDEED, THE NEW OS/8 BUILD PROGRAM WORKS EQUALLY WELL WITH THIS SYSTEM AS OS/8. TO OUR KNOWLEDGE THE ONLY DISADVANTAGE OF THIS SYSTEM OVER OS/8 IS THAT THE LIMITATION OF GET, RUN, AND SAVE COMMANDS TO ONE-PAGE HANDLER DEVICES IS STILL PRESENT. IT SHOULD BE NOTED THAT MANY OF THE STANDARD SYSTEMS PROGRAMS HAVE BEEN MODIFIED TO ALLOW IMPLEMENTATION OF THE EXTENDED COMMANDS, HENCE UPDATES OF THE OS/8 SYSTEMS PROGRAMS TECO.SV, PIP.SV, FORT.SV, AND THE LIKE MAY NEED MODIFICATION BEFORE THEY MAY BE COMPATIBLE WITH DECSYSTEM-8, OS/8 EDIT.SV, TECO.SV, AND PIP.SV IS ALREADY A PART OF DECSYSTEM-8. THE MAJOR DISADVANTAGE OF THE SYSTEM IS THAT IT USES SLIGHTLY MORE OF THE SYSTEM DEVICE THAN THE STANDARD RELEASES OF OS/8, AND THAT SOME MONITOR-LEVEL OPERATIONS WILL BE SLOWER FOR DECTAPE-ONLY CONFIGURATIONS.

BATCH MODE OPERATION IN A "NON-ATTENDED" MANNER IS POSSIBLE VIA THE PROGRAM HASP. THIS HAS THE ADVANTAGE OVER OS/8 BATCH IN THAT IT RUNS IN AN 8K SYSTEM. HOWEVER, IT IS NOT A TRUE BATCH PROCESSOR BUT RATHER ALLOWS THE SYSTEM TO RUN A STREAM OF JOBS IN AN UNATTENDED MANNER . HASP PROVIDES THIS FACILITY BY SUBSTITUTING AN ASCII FILE, CONTAINING "." AND "*" MODE COMMANDS, FOR THE KEYBOARD ENTERED COMMANDS.

D E C S Y S T E M - 8

DECSYSTEM-8 COMMAND SUMMARY

PS/8-OS/8 COMMANDS:

    .GET
    .ODT
    .R
    .RUN
    .SAVE

PS/8-OS/8 MODIFIED COMMANDS

COMMAND	HELP FILE	DESCRIPTION
.ASSIGN	ASSIGN.HL	USER DEVICE NAME ASSIGNMENT.
.DATE	DATE.HL	ENTERS AND PRINTS DATE.
.DEASSIGN	DEASSI.HL	DEASSIGNS USER DEVICE NAMES.

DECSYSTEM-8 ADDITIONAL COMMANDS:

COMMAND	HELP FILE	DESCRIPTION
.COMPIL	COMPIL.HL	ASSEMBLE OR COMPILE PROGRAMS.
.COPY	COPY.HL	COPY FILES BETWEEN DEVICES.
.CREATE	EDIT.HL	CREATE A FILE WITH EDIT.
.DELETE	DELETE.HL	DELETE FILES FROM DEVICES.
.DIRECT	DIRECT.HL	LISTS DIRECTORIES OF DEVICES.
.EDIT	EDIT.HL	EDIT A FILE WITH EDIT.
.FILE F	FILE.HL	COPY FILES FROM SYS TO A DEVICE.
.FILE R	FILE.HL	RECALL FILES FROM DEVICES TO SYS.
.FOCAL	FOCAL.HL	RUNS FOCFPS PROGRAMS.
.HELP	HELPC.HL	LISTS HELP FILES
.HD	HD.HL	"@OW'S THE DEVICE": GIVES STATUS.
.KJOB	LOG.HL	LOGS USER OFF SYSTEM.
.LIST	LIST.HL	LISTS FILES ON LPT OR TTY.
.LOGIN	LOG.HL	LOGS USER ON SYSTEM.
.MAKE	TECO.HL	CREATE A FILE WITH TECO.
.OFF	LOG.HL	SAME AS .KJOB.
.RENAME	RENAME.HL	CHANGES NAMES OF FILES.
.SQUASH	SQUASH.HL	SQUASHES DECSYSTEM-8 DEVICES.
.SUBMIT	SUBMIT.HL	SUBMITS JOBS TO HASP.SV
.TECO	TECO.HL	EDIT A FILE WITH TECO.
.ZERO	ZERO.HL	ZERO'S DEVICES WITH PARAMETER BLOCKS.

FOR FURTHER INFORMATION CONSULT THE HELP FILES.

D E C S Y S T E M - 8

```
**********
* .ASSIGN *
**********
```

COMPILE LEVEL COMMAND

SYNTAX: .AS [PDEV:[UDEV:]]

THE ASSIGN COMMAND TAKES THREE DISTINCT FORMS, ONE OF WHICH
IS IDENTICAL TO PS/8-OS/8.

1.   WITH TWO ARGUMENTS: .AS TTY:INP:
     ASSIGNS THE USER DEVICE NAME INP TO THE DEVICE TTY.

2.   WITH ONE ARGUMENT: .AS TL1
     VERIFIES   THE   EXISTENCE   OF THE DEVICE TL1.   THE DEVICE
     EXISTS IF NO ERROR MESSAGE RESULTS.   THE   USER   DEVICE
     NAME REMAINS ASSOCIATED WITH THE DEVICE.

         NOTE!!! THIS IS DIFFERENT FROM STANDARD OS/8
         IN WHICH CASE THE ABOVE COMMAND WOULD DO THE
         SAME AS A DE TL1 (SEE DEASSIGN).

3.   WITH NO ARGUMENTS: .AS
     THIS COMMAND WILL LOOK ON SYS: FOR THE FILE AUTOAS.SV.
     IF IT IS PRESENT THEN IT WILL BE RUN, IF NOT THE
     COMMAND IS IGNORED WITH A RETURN TO "." MODE. THERE
     ARE   PRESENTLY TWO VERSIONS OF AUTOAS.SV WHICH DO
     AUTOMATIC USER DEVICE NAME ASSIGNMENT OF DECTAPES OR
     LINCTAPES FROM INTERNAL LABELS.   THE   VERSIONS   ARE
     GENERATED FROM THE   SOURCE   DTA   WITH   CONDITIONAL
     ASSEMBLIES.   THE   PROGRAM   PARAM.SV IS   USED   FOR
     GENERATING THE INTERNAL LABELS ON TAPES.
```

```
***********
* .COMPILE *
***********
```

COMPILE LEVEL COMMAND

SYNTAX:
.CO [BIN OV.=][DEV:]<NAME.EX>[PRECOM OPTIONS][/CD OPTIONS]

THIS COMMAND CALLS PAL8, SABR, OR FORT FOR PROCESSING OF
SOURCE FILES. THE PROCESSOR TO CALL IS SPECIFIED BY THE EXTENSION
IN THE INPUT FILE NAME. IF NO EXTENSION IS SPECIFIED, PA IS
ASSUMED.
THE SOURCE FILENAME IS THE ONLY REQUIRED ARGUMENT.

[BIN OVERRIDE]:

THE BINARY OVERRIDE, IF SPECIFIED, MUST BE SEPARATED FROM THE
SOURCE FILE BY AN "=" SIGN. IT FORCES THE DEFAULT OPTION FOR THE
BINARY OUTPUT TO BE OVERRIDEN. THE DEFAULTS ARE:

1. IF NEITHER THE /L OR /G OPTIONS ARE USED, THE BINARY
FILE GOES TO SYS WITH THE SAME NAME AS THE SOURCE AND
WITH DEFAULT EXTENSION .BN.

2. IF EITHER THE /L OR /G OPTIONS ARE USED, NO
PERMANENT BINARY FILE IS PRODUCED.

<NAME.EX>:

THE SOURCE FILE SPECIFIES THE SOURCE PROGRAM AND ALSO THE
PROCESSOR TO USE. IF NO EXTENTION OR IF THE EXTENSION IS PA THEN
PAL8 IS CHAINED TO. IF THE EXTENSION IS SB THEN THE SABER
ASSEMBLER IS CALLED. FORT IS CALLED FOR THE FT EXTENSION. THE
FULL FORM OF THIS ARGUMENT IS: [.EX]<[DEV:]NAME1[.EX][,NAME2,...]>

THE OPTIONAL FIRST [.EX] IS USED WHEN THE FIRST FILENAME
EXTENSION IS INCORRECT FOR THE REQUIRED LANGUAGE PROCESSOR. IT
HAS THE EFFECT OF ONLY SPECIFYING THE PROCESSOR. THE ARGUMENTS
INCLOSED IN < > ARE A STRING OF INPUT FILES TO THE PROCESSOR.
THE DEFAULT DEVICE NAME IS DSK, AND THE DEFAULT EXTENSION FOR
FILES AFTER THE FIRST IS THE EXTENSION FIRST SPECIFIED. E.G.
.SB,FL1.AB,DTA1:FL2,FL3 WILL SPECIFY THE SABR ASSEMBLER WITH
INPUT FILES DSK:FL1.AB, DTA1:FL2.SB, AND DTA1:FL3.SB.

IF COMPIL.PA IS ASSEMBLED WITH FORTIV=1, CODE WILL BE
GENERATED FOR OS/8 RTPS FORTRAN IV. IN THIS CASE .FT CALLS F4,
.RA CALLS RALF, .F2 CALLS STANDARD OS/8 FORTRAN, AND .SB IS NOT
IMPLEMENTED. IN ADDITION, THE .EXECUTE COMMAND IS IMPLEMENTED
FOR PASSING A .LD FILE TO FRTS.

[PRECOMPILE OPTIONS]:

THE OPTION L SPECIFIES THAT A LISTING IS TO BE PRODUCED ON THE
SAME DEVICE AS THE BINARY OUTPUT, UNLESS "=DEV" IS SPECIFIED, IN
WHICH CASE THE LISTING WILL GO TO THE SPECIFIED DEVICE. THE NAME
WILL BE THE SAME AS THE SPECIFIED INPUT NAME WITH EXTENSION LS.
THE OPTION N SPECIFIES THAT NO PERMANENT BINARY OUTPUT IS TO BE
PRODUCED.

[/CD OPTIONS]

THE CD OPTION FIELD IS PRECEDED BY A SINGLE SLASH. IT CONSISTS
OF A CHARACTER STRING COMPOSED OF ANY NUMBER OF CHARACTERS WHICH
ARE LEGAL COMMAND DECODER SWITCHES. THE "=" OPTION IS NOT
SUPPORTED.
THE LINE MAY BE TERMINATED BY EITHER A CARRIAGE RETURN OR AN
ALTMODE. THIS WILL BE PASSED ALONG WITH THE CD OPTIONS TO THE
APPROPRIATE PROCESSOR.

EXAMPLES:
 1. ASSEMBLE AND EXECUTE THE PROGRAM EXA.PA. NO BINARY
     IS PRODUCED.

                    .CO EXA/G

 2. AS IN (1) EXCEPT PRODUCE A LISTING ON THE LINEPRINTER
     BEFORE EXECUTION.

                    .CO EXA L=LPT:/G

 3. DO A SYNTAX CHECK ON EXA.PA.

                    .CO EXA N

 4. ASSEMBLE THE SABER FILE EXC.SB, PRODUCING A LISTING
     ON THE SYSTEM DEVICE NAMED EXC.LS. LOAD INTO CORE
     AND SAVE THE CORE IMAGE ON SYS:

                        .CO EXC.SB L/L$
                        .SA SYS EXC

 5. COMPILE SUB1.FT, AND ASSEMBLE SUB2.SB. THEN COMPILE
     MAIN.FT AND LINK THE SUBROUTINES IN, SAVING THE FINAL
     RESULTS ON IOD1.

                        .CO SUB1.FT
                        .CO SUB2.SB

```
.CO MAIN.FT/L
*SUB1,SUB2$
.SAVE IOD1:MYPROG
```

6. ASSEMBLE OPQUIZ.PA, PRODUCING A BINARY FILE F1.BN.

```
.CO F1=OPQUIZ
```

7. ASSEMBLE OPQUIZ.PA, PRODUCING A BINARY PAPER TAPE AND
    A LISTING ON SYS.

```
.CO PTP:X=OPQUIZ L=SYS
```

NOTE THAT A DUMMY NAME IS REQIRED TO NON-DIRECTORY
DEVICES, AND THAT SYS MUST BE SPECIFIED SINCE THE
DEVICE FOR BINARY IS PTP NOT SYS.

```
*********
* .COPY *
*********
```

COMPILE LEVEL COMMAND

SYNTAX:

```
.COPY ODEV:<IDEV:NM1,NM2,...

.COPD ODEV:<IDEV:NM1,NM2,...
```

THIS MONITOR LEVEL COMMAND IS USED FOR TRANSFERRING FILES
BETWEEN TWO NON-SYSTEM DEVICES. THE COPY COMMAND IS SUPPORTED BY
THE PROGRAM UMOUNT. THIS WILL COPY THE FILES NM1, NM2, ... FROM
IDEV TO ODEV WITH THE SAME NAMES.

A "DANGEROUS" MODE IS ALSO SUPPORTED FOR THIS COMMAND,
SIGNALED BY .COPD. IN THIS CASE ALL OF THE DIRECTORY WORK IS DONE
ON THE OUTPUT DEVICE PRIOR TO THE TRANSFER. THIS IS MUCH FASTER
FOR MULTIPLE TRANSFERS TO OR FROM DECTAPE OR LINCTAPE. IT IS
"DANGEROUS" SINCE A ↑C WILL LEAVE THE DIRECTORY INCORRECT FOR THE
FILES NOT TRANSFERRED.

```
**********
* .CREATE *
**********
```

COMPILE LEVEL COMMAND

SYNTAX: .CR NAME[.EX]

THE DESCRIPTION OF THE .CREATE COMMAND IS INCLUDED IN THE DESCRIPTION OF THE .EDIT COMMAND.

```
*********
* .DATE *
*********
```

COMPILE LEVEL COMMAND

SYNTAX: .DATE [MM/DD/YY]

THE DATE COMMAND HAS BEEN MODIFIED, AND NOW TAKES TWO FORMS:

1. WITH ONE ARGUMENT: .DATE MM/DD/YY
   THIS COMMAND DOES THE STANDARD UPDATE OF THE PS/8 DATE
   WORD. IN ADDITION, IF ON SYS, DATE.SV IS CALLED AND THE
   DATE IS PRINTED IN READABLE FORM, E.G.

                    .DA 12/7/72
                    THURSDAY, DECEMBER 7, 1972

2. WITH NO ARGUMENTS: .DA
   THIS COMMAND WILL MERELY PRINT OUT THE DATE IN LONG
   FORM. IN ADDITION IF THERE IS A BAD DATE ON THE SYSTEM
   THE MESSAGE:

                    BAD DATE ON SYSTEM
                    PLEASE ENTER DATE:
                    .DATE MM/DD/YY

WILL BE PRINTED.


```
*************
* .DEASSIGN *
*************
```

COMPILE LEVEL COMMAND

SYNTAX: .DE [DEV:]

THIS COMMAND NOW HAS TWO FORMS:

1. WITH NO ARGUMENTS: .DE
   PURGES ALL USER DEVICE NAME ASSIGNMENTS (AS IN PS/8 OR
   OS/8).

2.   WITH ONE ARGUMENT: .DE TTY
      REMOVES THE USER NAME ASSOCIATED WITH THE PARTICULAR
      DEVICE ONLY.


```
**********
* .DELETE *
**********
```

COMPILE LEVEL COMMAND

SYNTAX: .DEL [DEV:]NM1,[DEV2:]NM2,....

      THIS COMMAND MAY BE USED TO DELETE AS MANY FILES AS REQUIRED
ON SPECIFIED DEVICES. IF NO DEVICE IS SPECIFIED, FILES ON DSK:
DEVICE ARE DELETED. IN THIS CASE A PROGRAM WHICH IS IN CORE, DUE
TO THE GET COMMAND OR AN ALTMODE RETURN FROM A LOADER, IS LEFT
INTACT (IF DEVICE HANDLER IS IN CORE, AND SYS=DSK). FOR OTHER
DEVICES, A DEVICE HANDLER IS LOADED INTO CORE AT LOC. 7000.   THE
FULL SYNTAX IS:

        .DEL [DEV:]<NAME1.EX,NAME2.EX,...>[DEV:]<NAMES,...>

THE DEFAULT DEVICE IS DSK.


```
**********
* .DIRECT *
**********
```

COMPILE LEVEL COMMAND

SYNTAX: .DI [DEV:][N?M*.E?][/E/F/T/L/A/W]

      THIS COMMAND RUNS THE PROGRAM DIRECT.SV IF IT EXISTS ON THE
SYSTEM DEVICE.   THIS COMMAND LISTS DIRECTORIES OF DEVICES.
OUTPUT, IF NOT OVERRIDDEN, GOES TO THE DEVICE DIR IF IT EXISTS, IF
NOT THEN TO THE DEVICE LPT, AND IF THAT DOES NOT EXIST TO TTY. (A
CONDITIONAL ASSEMBLY PARAMETER WILL TAKE LPT OUT OF THE DEFAULT
LIST). THE SYNTAX IS:

        .DIR [DEV:][NAME.EX][/OPTIONS]

WHERE THE DEFAULT DEVICE IS DSK AND THE OPTIONS ARE:

```
/F        LIST IN SHORT FORM (AS IN PIP)
/E        LIST EMPTIES (AS IN PIP)
/A        ALPHABETIZE THE LISTING
/T        OUTPUT TO TTY
/L        OUTPUT TO LPT
/W        OUTPUT IN MULTIPLE COLUMNS.
/W: N     OUTPUT IN N COLUMNS.
```

THE DEFAULT LISTING IS IN PIP'S /L TYPE FORMAT. THE DEFAULT NUMBER OF COLUMNS AND ROWS IS SPECIFIED AT ASSEMBLY TIME, OVERRIDDEN BY THE /W OPTION. AND MULTIPLE OPTIONS MAY BE SPECIFIED.
THE OPTIONAL NAME.EX IS IMPLEMENTED WITH FULL WILD CARD CONSTRUCTION AND WILL LIST ONLY THOSE DIRECTORY ENTRIES WHICH FIT INTO THE NAME FIELD. E.G.

```
.DIR *.LS        LIST ALL .LS FILES ON DSK
.DIR NAM.*       LIST NAM FILES WITH ANY EXTENSION
.DIR ??CDE.*     LIST ALL FILES WITH CDE AS THE 3RD
                 THRU 5TH CHARACTERS, ANY EXTENSION.

.DIR A*.*        LIST ALL FILES STARTING WITH "A".
```

THERE ARE CURRENTLY TWO VERSIONS OF DIRECT AVAILABLE, THE ALTERNATE ONE BEING WITH OUTPUT TO THE KV8/I SCOPE. THE VERSION IS SPECIFIED BY CONDITIONAL ASSEMBLIES IN THE SOURCE.

```
**********
* .CREATE *
*  .EDIT  *
**********
```

COMPILE LEVEL COMMAND

SYNTAX:
.ED [DEV:]<NAME[.EX]>[=ODEV]
.CR [DEV:]<NAME[.EX]>

THESE TWO COMMANDS TAKE ONE FILENAME AS AN ARGUMENT AND CALL EDIT.SV FOR EITHER INITIAL CREATION OF A FILE OR UPDATE OF AN EXISTING FILE. THE EXTENTION .PA IS FORCED IF NONE IS SPECIFIED.

IN THE CASE OF THE EDIT COMMAND, A NEW FILE WITH THE SAME NAME AS THE OLD FILE IS OPENED FOR OUTPUT ON ODEV:, IF THE "=" CONSTRUCT IS OMITTED THEN THE OUTPUT DEVICE IS THE SAME AS THE INPUT DEVICE. THE DEFAULT DEVICE IS DSK.

A MODIFIED VERSION OF EDIT IS REQUIRED. THERE IS CURRENTLY TWO VERSIONS OF THE OS/8.V2 EDIT AVAILABLE: ONE FOR STANDARD

PDP-8'S AND ONE FOR USERS OF PDP/12'S OR KV8/I DISPLAYS. WITH THE KV8/I DISPLAY, A MODIFICATION TO KVEDIT IS POSSIBLE, AND AN ASSEMBLY PARAMETER IN COMPIL.PA ALLOWS KVEDIT TO BECOME THE NORMAL EDITOR, WITH EDIT CALLED WHEN NEEDED BY TYPING X AFTER THE FILENAME.

```
*********
* .FILE *
*********
```

COMPILE LEVEL COMMANDS

SYNTAX:
.FI F DEV: NM1.EX,NM2,...
.FI FD DEV: NM1.EX,NM2,...
.FI R DEV: NM1.EX,NM2,...
.FI RD DEV: NM1.EX,NM2,...

THIS MONITOR LEVEL COMMAND RUNS THE PROGRAM UMOUNT.SV, WHICH CURRENTLY CONTAINS THE FOLLOWING TWO FORMS.

1.   .FILE F <DEV: FILE1.EX,FILE2.EX,....>
   TRANSFERS FILES FROM THE SYSTEM DEVICE TO THE SPECIFIED DEVICE IN IMAGE MODE, RETAINING THE ORIGINAL DATE ENTRY.

2.   .FILE R <DEV: FILE1.EX,FILE2.EX,....>
   RECALLS FILES FROM THE SPECIFIED DEVICE TO THE SYSTEM DEVICE, AGAIN NOT CHANGING THE DATE ENTRY.

AS MANY FILES MAY BE TRANSFERRED WITH ONE CALL AS WILL FIT ON ONE LINE.

A SPECIAL MODE IS SUPPORTED WHICH DOES ALL OF THE DIRECTORY WORK PRIOR TO TRANSFER. THIS IS MUCH FASTER FOR MULTIPLE TRANSFERS TO OR FROM DECTAPE OR LINCTAPE. THE MODE IS SIGNALED BY A "D" (FOR DANGEROUS) AFTER THE "F" OR "R"..FI RD DTA3: NAME,...

```
*********
* .FOCAL *
*********
```

COMPILE LEVEL COMMAND

SYNTAX: .FO [DEV: NAME]

THE FOCAL COMMAND IS USED TO RUN PROGRAMS UNDER A VERSION OF

FOCAL - CALLED FOCFPS.SV. PROGRAMS MAY BE SAVED IN AN ABBREVIATED FORM AND RUN UNDER HASP IF DESIRED. THE COMMAND TAKES SEVERAL FORMS.

1. .FOCAL OR .FO
    WILL ACCOMPLISH AN EFFECTIVE:

                    .R FOCFPS

2. .FO [DEV:]<NAME>
    WILL RUN FOCFPS.SV PASSING TO IT THE COMMAND LINE

        "PROGRAM RUN,[DEV:]<NAME>;DO ALL;EXIT

    NOTE THAT THE NEW EXIT COMMAND RETURNS TO "." HENCE, AFTER THE PROGRAM IS RUN RETURN WILL BE TO THE MONITOR. DEFAULT DEVICE IS DSK AND THE DEFAULT EXTENTION IS .FL.

3. .FO [DEV:]<NAME>;COMMANDS
    WILL DO AS IN (2) ABOVE EXCEPT THAT INSTEAD OF A "DO ALL" THE ";COMMANDS" WILL BE PASSED TO FOCFPS AS A COMMAND LINE FOLLOWED BY AN ";EXIT".

D E C S Y S T E M - 8

```
*************************************
* ↑HASP↑ - THE BATCH MODE PROCESSOR *
*************************************
```

HASP WAS WRITTEN TO PROVIDE PS/8 USERS THE CAPABILITY OF
CREATING A FILE OF MONITOR COMMANDS WHICH MAY THEN BE EXECUTED
WITHOUT USER INTERVENTION.
TO RUN HASP TYPE

.R HASP

AND SPECIFY TO THE COMMAND DECODER THE NAME OF A FILE ON THE
SYSTEM DEVICE (SEE THE EXAMPLE BELOW FOR OTHER DEVICES). OR THE
USER MAY

.SU [DEV:]<NAME[.EX]>

SEE THE "SUBMIT" COMMAND. IF THE FILE IS NOT ON SYS THEN IT WILL
BE COPIED INTO THE FILE HASPBT.TM ON SYS, WHICH WILL THEN BE
SUBMITTED TO HASP. THE DEFAULT EXTENSION IS BT. HASP WILL THEN
PASS CONTROL TO THIS FILE WHICH CONTAINS A SEQUENCE OF COMMANDS
(EACH LINE MUST BEGIN WITH EITHER A ".", "/", OR AN "*"). A
SEARCH WILL BE MADE FOR THE FIRST LINE WHICH BEGINS WITH A ".",
AND THAT COMMAND WILL BE EXECUTED. IF THE PROGRAM CALLED CALLS
THE COMMAND DECODER, HASP WILL EXAMINE THE PASSED FILE TO
DETERMINE WHETHER THE LINE STARTS WITH AN "*". IF IT DOES, THE
LINE WILL BE PASED BACK TO THE COMMAND DECODER AND THEN THE
COMMAND DECODER WILL ANALYZE THE LINE. IF THE COMMAND DECODER
DETECTS AN ERROR IN THE LINE OR THE LINE DOES NOT BEGIN WITH AN
ASTERISK, ↑HASP↑ WILL TERMINATE THE PROGRAM AND BEGIN SEARCHING
FOR THE NEXT LINE BEGINING WITH A ".". (TO PASS TO THE KEYBOARD
MONITOR).

IF THE LINE BEGINS WITH A "/" THEN THE LINE WILL BE TYPED ON
THE CONSOL TELETYPE AND IGNORED. ANYWHERE A "/" LINE HAS AN ↑
CHARACTER THEN HASP WILL STOP PASSING LINES UNTIL ANY CHARACTER IS
TYPED ON THE CONSOL TTY.

LINES WHICH WOULD NORMALLY BE TERMINATED BY AN ALTMODE
CHARACTER ON THE TELETYPE MUST BE TERMINATED BY A DOLLAR SIGN AND
A CARRIAGE RETURN.

IT IS ILLEGAL TO TAKE ANY ACTION WHICH WILL REPOSITON THE
COMMAND FILE DURING EXECUTION UNTIL THE LAST BLOCK OF THE FILE HAS
BEEN READ BY HASP. IF THIS IS DONE, SUCH AS BY A SQUASH OR BY
DELETING THE FILE, THE RESULTS WILL BE UN-PREDICTABLE.

HASP RETAINS CONTROL OF THE SYSTEM UNTIL AN END-OF-FILE IS
REACHED IN THE INPUT FILE STREAM. ANY ATTEMPT TO TERMINATE A
PROGRAM WILL MERELY CAUSE HASP TO GO TO THE NEXT LINE WHICH BEGINS
WITH A ".". IN ORDER TO KILL HASP, IT IS NECESSARY TO DEPOSIT
0007 IN LOCATION 17673, THEN START AT 7600. ALTERNATIVELY, YOU

MAY BOOTSTRAP THE SYSTEM.
EXAMPLE: TO READ IN A CONTROL DECK FROM A CARD READER CONCATINATED
BY THE FILE CONTRL.BT FROM DTA1, AND EXECUTE, THE FOLLOWING SHOULD
BE IN THE FILE HASP.BT

```
.R PIP
*HASP2.BT<CDR:/C,DTA1:CONTRL.BT
.SU HASP2
```

TO USE THIS, YOU TYPE:

```
.SU HASP
```

THE HASP WILL TRANSFER CONTROL TO THE FILE HASP.BT WHICH WILL
RUN PIP TO CREATE A FILE CONTAINING THE CARDS IN THE CARD READER,
AND THE CONTRL.BT FILE. THEN A NEW COPY OF HASP WILL BE CALLED TO
TRANSFER CONTROL TO THIS FILE. IT SHOULD BE NOTED THAT THE REASON
THE NEW FILE MAY BE NAMED HASP.BT IS THAT THE LAST BLOCK OF THE
OLD HASP.BT FILE HAS ALREADY BEEN READ BY HASP (A SHORT FILE).

IT SHOULD BE NOTED THAT SOURCE PROGRAMS, AND DATA COULD
FOLLOW THE CONTROL CARDS IN THE CDR:. I.E. PIP WILL ONLY READ TO
THE FIRST END-OF-FILE.

IT SHOULD BE OBVIOUS THAT HASP IS NOT A TRUE BATCH MODE
PROCESSOR, BUT RATHER ALLOWS REPLACEMENT OF THE OPERATOR BY A FILE
CONTAINING KEYBOARD AND COMMAND DECODER LEVEL COMMANDS.

A PATCH HAS BEEN DEVELOPED TO OS/8 V2 PIP.SV WHICH WILL
CIRCUMVENT THE "ARE YOU SURE?" MESSAGE WHEN DOING A SQUISH (SO
THAT AN OPERATOR NEED NOT BE PRESENT).   THIS FEATURE IS INVOCED
WITH A /S=10001 OPTION.   THE PATCH IS:

```
.GE SYS:PIP
.ODT
15200/1377 5322
15322/XXXX 1727
15323/XXXX 7640
15324/XXXX 5202
15325/XXXX 1377
15326/XXXX 5201
15327/XXXX 7642
↑C
.SA SYS:PIP
```

D E C S Y S T E M - 8

```
********
* .HELP *
********
```

COMPILE LEVEL COMMAND

SYNTAX: .HE [DEV:][NAME]

    THIS COMMAND IS USED FOR OBTAINING DOCUMENTATION HELP FROM
THE SYSTEM FOR UNSOPHISTICATED USERS. THE SYNTAX IS:
                    .HELP [DEV: NAME.EX]

IF THE OPTIONAL ARGUMENT IS OMMITTED THEN THE FILE HELP.HL, IF
AVAILABLE, IS LISTED.   OTHERWISE THE SPECIFIED FILE IS LISTED.
OUTPUT IS ALWAYS TO THE TTY: DEVICE. THE DEFAULT INPUT DEVICE IS
HL: IF IT EXISTS, IF NOT THEN SYS: IS DEFAULT. THE DEFAULT
EXTENSION IS .HL.

    FOR USERS WITH SMALL SYSTEM DEVICES, IT IS RECOMMENDED THAT
THE .HL FILES BE KEPT ON TAPE (LABELED HL:), WITH A ONE BLOCK
HELP.HL FILE ON SYS. THIS FILE WOULD THEN CONTAIN INSTRUCTIONS ON
HOW TO GET FURTHER HELP FROM THE HL: TAPE.

```
*******
* .HD *
*******
```

COMPILE LEVEL COMMAND

SYNTAX: .HD [DEV]

    THIS IS THE "HOW'S THE DEVICE" COMMAND. IT IS USED TO LIST
THE TOTAL NUMBER OF FREE BLOCKS, THE FRAGMENTATION OF THE
"EMPTIES", AND THE SIZE OF THE LARGEST EMPTY.   THIS COMMAND IS
IMPLEMENTED AS PART OF SQUASH.SV.

```
********
* .KJOB *
********
```

COMPILE LEVEL COMMAND

SYNTAX: .KJ

    THIS COMMAND LOGS THE USER OFF THE SYSTEM. FOR FURTHER
INFORMATION SEE LOG.

```
*********
* .LIST *
*********
```

COMPILE LEVEL COMMAND

SYNTAX: .LI [DEV:]NM1[.EX],NM2,...

THE LIST COMMAND IS USED FOR OUTPUTING MULTIPLE LISTING FILES. THE SYNTAX IS:
.LIST [DEV:]NM1[.EX],NM2,...

OUTPUT IS TO DEVICE LPT: IF AVAILABLE, AND TO TTY IF NOT. THE DEFAULT INPUT DEVICE IS DSK: AND DEFAULT EXTENSION IS .LS. AS MANY FILES MAY BE SPECIFIED AS WILL FIT ON THE COMMAND LINE.


```
**********
* .LOGIN *
* .KJOB  *
* .OFF   *
**********
```

COMPILE LEVEL COMMANDS

```
SYNTAX:
.LO MM/DD/YY
   .KJ
   .OFF
```


THESE COMMANDS ARE USED FOR LOGGING ON AND OFF THE SYSTEM. A FILE CALLED SYSLOG.DA IS CREATED AND UPDATED WHENEVER LOGGING OPERATIONS ARE EXECUTED. IN ADDITION A FILE CALLED DIRECT.TM IS CREATED ON EACH LOGIN FOR THE CONFIRM DIALOGUE AT KJOB TIME. THE OFF COMMAND IS EQUIVALENT TO THE KJOB COMMAND.

CURRENTLY, LOCATION 7777(8) IS USED TO INDICATE WHETHER SOMEONE IS LOGGED ONTO THE SYSTEM. AS THIS LOCATION IS RESERVED FOR FUTURE USE IN THE OS/8 MONITOR, SOME INCONSISTENCIES MAY EVENTUALLY ARISE. THERE IS NO PROBLEM AS OF VERSION 1.

WHEN IN THE KEYBOARD MONITOR, IF NO-ONE IS LOGGED ON THE RESPONSES TO ALL COMMANDS ARE LOGON!, E.G.

```
.R PIP
LOGON!
```

THE USER MERELY NEEDS TO TYPE LOGON TO INITIATE THE LOG PROCEEDURE.

.LO [MM/DD/YY]

THE QUESTIONS ASKED ARE SELF EXPLAINATORY. NOTE THAT IF THERE IS NO FILE LOG.SV ON THE SYSTEM THEN THE LOGIN COMMAND WILL AUTOMATICALLY LET THE USER ON THE SYSTEM WITHOUT DIALOGUE. THIS IS ESPECIALLY USEFUL TO KNOW FOR USERS WITH DECTAPE OR LINCTAPE SYSTEMS SINCE THE LOG PROCEEDURE INVOLVES A LOT OF TAPE SPINNING.

THE MESSAGE OF THE DAY FEATURE IS CALLED BY THE DATE.SV PROGRAM (SEE DATE DOCUMENTATION) IF IT HAS BEEN CHAINED TO BY THE LOGIN PROCEEDURE. DATE, AFTER PRINTING THE DATE, WILL CHECK TO SEE IF THERE IS A FILE MESSAG.DY ON SYS. IF SO, IT WILL LIST THE FILE MESSAG.DY ON THE TTY. THIS FILE USUALLY CONTAINS A ONE OR TWO LINE MESSAGE WITH SOME CURRENT INFORMATION ABOUT THE SYSTEM. [A SPECIAL VERSION OF PIP.SV IS NO LONGER NEEDED FOR IMPLEMENTATION OF THIS FEATURE.]
TO LOGOFF THE SYSTEM THE USER TYPES THE COMMAND:

```
             .KJOB
OR      .KJ
OR      .OFF
```

AT KJOB, IF ANY NEW FILES HAVE BEEN CREATED, THE ROUTINE WIL TYPE CONFIRM: TO WHICH ONE MUST RESPOND EITHER K IF YOU WISH TO KILL ALL FILES FRESHLY CREATED SINCE LOGIN OR I IF ONE WISHES TO DECIDE THE FATE OF EACH FILE INDIVIDUALLY. BY TYPING A CARRIAGE RETURN, YOU WILL BE PROMPTED TO ENTER ONE OF THE TWO OPTIONS. IF THE K OPTION IS CHOSEN, THOSE FILES WHOSE NAMES WERE NOT IN THE DIRECTORY AT LOGIN TIME WILL BE DELETED. THUS AN UPDATE OF A FILE WHICH EXISTED AT LOGIN WILL BE RETAINED. IF I IS CHOSEN, EACH NEW FILENAME WILL BE PRINTED. ONE MUST RESPOND WITH A K TO KILL THE FILE, OR A P TO PRESERVE IT. AGAIN, AN EXPLAINATION WILL BE GIVEN IF AN ILLEGAL RESPONSE IS GIVEN. IN ADDITION ALL FILES WITH EXTENSIONS TM, LS, OR BK WILL ALWAYS BE DELETED, REGARDLESS OF OPTIONS. TO SAVE ONE OF THESE FILES, THE NAME MUST BE CHANGED BEFORE KJOB.

THE INTENT OF THE ABOVE CONFIRM DIALOGUE IS TO KEEP THE SYSTEM DEVICE FREE OF USER GARBAGE THAT HE FORGOT ABOUT.

```
********
* .MAKE *
********
```

COMPILE LEVEL COMMAND

SYNTAX: .MAKE [DEV:]<NAME[.EX]>

THE .MAKE COMMAND CREATES FILES TO BE EDITED WITH TECO.SV. A

SPECIAL, CHAINABLE VERSION OF TECO IS REQUIRED. SEE THE .TECO
COMMAND FOR FURTER INFORMATION.

```
********
* .OFF *
********
```

COMPILE LEVEL COMMAND

SYNTAX: .OFF

THE .OFF COMMAND IS USED TO LOG THE USER OFF THE SYSTEM.   THE
COMMAND IS IDENTICAL IN FUNCTION TO THE .KJOB COMMAND. SEE LOG
FOR A COMPLETE DESCRIPTION.

```
**********
* .RENAME *
**********
```

COMPILE LEVEL COMMAND

SYNTAX: .RE [DEV:]NEWN1.EX=OLDN1.EX,NEWN2.EX=OLDN2.EX,...

THIS COMMAND IS USED TO RENAME FILES ON FILE STRUCTURED
DEVICES. AS MANY FILES AS WILL FIT ON ONE LINE MAY BE RENAMED.
THE COMMENT ABOUT CORE IN THE DESCRIPTION OF THE DELETE COMMAND
APPLIES EQUALLY HERE. THE COMMAND SYNTAX IS:

.RENAME [DEV:]NEWNAM.EX=OLD.EX,......

THE DEFALT DEVICE IS DSK.

D E C S Y S T E M - 8

```
**********
* .SQUASH *
**********
```

COMPILE LEVEL COMMAND

SYNTAX:
.SQ [ODEV: [←IDEV:][USING DEV:][UNTIL NNN][SAVE N][WAIT]]

        SQUASH IS A DECSYSTEM-8 COMPILE LEVEL COMMAND WHICH REPLACES
THE "/S" OPTION OF PIP.   IT IS AN IMPROVEMENT OVER THE OLD PIP
SQUISH   IN   THAT   FILE   INTEGRETY   IS   MAINTAINED   FOR   CERTAIN
OPERATIONS, AND THERE ARE MORE REASONABLE OPTIONS AVAILABLE.   EACH
DECSYSTEM-8 DEVICE MAY CARRY A PARAMETER BLOCK WHICH INDICATES,
AMONG   OTHER   THINGS,   WHETHER   THE   DEVICE   MAY BE SQUASHED TO, IS
ZEROABLE, AND/OR MAY BE SQUASHED TO ITSELF.   A   DEVICE   WITHOUT   A
PARAMETER BLOCK MAY ONLY BE SQUASHED TO ITSELF USING THIS COMMAND.

THE "USING" DEVICE

        FOR   SELF   SQUASHES   OF   DEVICES   (ESPECIALLY   TAPES),   AN
INTERMEDIATE DEVICE MAY BE SPECIFIED TO EXPEDITE THE OPERATION,
I.E. SPEED IT UP.   THIS DEVICE IS SPECIFIED BY THE USING DEV:
OPTION IN THE COMMAND SYNTAX. IF THIS DEVICE IS ZEROABLE,
(ASCERTAINED IN THE PARAMETER BLOCK), THEN THE ENTIRE DEVICE IS
USED FOR INTERMEDIATE STORAGE OF FILES DURRING THE SQUASH.   A
DIRECTORY IS MAINTAINED ON THIS DEVICE TO GIVE A DEGREE OF FILE
SECURITY DURING THE SQUASH OPERATION.   I.E. IF AN I/O ERROR
OCCURRS WHILE WRITING THE FILES BACK ON THE DEVICE BEING SQUASHED,
THE OPERATION WILL TERMINATE, WITH A GOOD COPY OF THE FILE ON THE
USING DEVICE.

        IF THE USING DEVICE IS NOT ZEROABLE, IS THE SYSTEM DEVICE, OR
IF IT DOES NOT HAVE A PARAMETER BLOCK, THEN THE LARGEST EMPTY
SEGMENT ON THE DEVICE IS USED AS INTERMEDIATE STORAGE.   IN THIS
CASE THE DIRECTORY OF THE USING DEVICE IS NOT CHANGED AND AN I/O
ERROR CAN RESULT IN LOSS OF FILES.   THIS FEATURE CAN BE EXCLUDED
BY A CONDITIONAL ASSEMBLY PARAMETER, SYSOK, IN THE SOURCE.

        THE USING DEVICE MAY BE SHORTER THAN THE DEVICE BEING
SQUASHED, IN WHICH CASE MULTIPLE PASSES WILL BE MADE ON THE
DEVICE. THE ONE RESTRICTION IS THAT THE AVAILABLE STORAGE ON THE
USING DEVICE MUST BE AT LEAST AS LARGE AS THE LARGEST FILE TO BE
SQUASHED.

THE "UNTIL" OPTION

        THE UNTIL OPTION IN THE COMMAND SYNTAX IS USED TO TERMINATE
THE SQUASH OPERATION WHEN A SPECIFIED NUMBER OF CONTIGUOUS FREE
BLOCKS BECOME AVAILABLE.   OF COURSE, THIS OPTION IS ONLY

```

MEANINGFUL FOR A SELF SQUASH, WITH OR WITHOUT A USING DEVICE.


WAIT

        THIS OPTION WILL CAUSE THE PROCESSING OF  THE  COMMAND  TO  BE
INTERRUPTED  AFTER  THE  SYSTEM  DEVICE  IS  NO  LONGER  NEEDED FOR
PROCESSING.  AFTER THE MESSAGE "WAITING...", THE USER  MAY  REMOUNT
TAPES,  INCLUDING  THE  REMOVAL  OF SYS.  TYPING ANY CHARACTER WILL
CONTINUE PROCESSING  OF  THE  COMMAND.  BEFORE  RETURNING  TO  THE
MONITOR,  THE MESSAGE "WAITING..." WILL AGAIN BE TYPED TO ALLOW THE
USER TO REMOUNT SYS, OR OTHER TAPES.


THE "SAVE" OPTION

        THE SAVE OPTION ALLOWS SAVING EXTRA INFORMATION WORDS  IN  THE
DIRECTORY  OF  THE  DEVICE.   IF  NO  SAVE OPTION IS GIVEN THEN THE
NUMBER OF ADDITIONAL INFORMATION  WORDS  IN  THE  INDEV:  DIRECTORY
WILL  BE  USED,  UNLESS  IT  IS  ZERO, IN WHICH CASE ONE ADDITIONAL
INFORMATION WORD WILL BE RESERVED.


FOR ALL OF THE ABOVE OPTIONS, ONLY TWO  CHARACTERS  OF  THE  OPTION
NEED BE SPECIFIED.


FILE INTEGRITY

        THERE  ARE TWO MODES OF TRANSFER IN THE SQUASH COMMAND: NORMAL
AND SECURE.  THESE COMMENTS ONLY APPLY TO SELF  SQUASHES  WITH  NO
USING  DEVICE,  SINCE  ALL  OTHER MODES, (EXCLUDING THAT MEANTIONED
UNDER "USING" DEVICES), ARE  NORMALLY  SECURE.   DURRING  A  SECURE
SQUASH,  IF  A  FILE WILL OVERWRITE ITSELF DURRING THE TRANSFER, IT
IS  INSTEAD  COPIED  OUT  ELSEWERE  ON  THE  DEVICE  WITH  THE  OLD
DIRECTORY  ENTRY  DELETED  ONLY  IF  THE  TRANSFER  IS  SUCCESSFUL.
NORMAL SQUASHING CONTINUES FROM THAT POINT ONCE THE  NEW  DIRECTORY
IS  WRITTEN  OUT.   IF  THERE  IS NO EMPTY LARGE ENOUGH TO COPY THE
FILE INTO, THE OPERATOR IS  NOTIFIED  AND  ASKED  IF  HE  WANTS  TO
TRANSFER  THE FILE IN THE NON-SECURE MODE.  IT SHOULD BE NOTED THAT
THE ORDER OF FILES MAY CHANGE WHEN DOING A SECURE SQUASH.

        SINCE THERE IS A LOT OF TAPE MOTION DURRING  SECURE  SQUASHES,
THE  SECURE  MODE  OF TRANSFER WILL ONLY OCCUR WHEN SQUASHING DF32'S,
RF08'S, AND RK8'S.  CONDITIONAL  ASSEMBLY  PARAMETERS  EXIST  FOR
ALWAYS  DOING  SECURE  SQUASHES OR NEVER DOING THEM (THE PARAMETERS
VERYSAFE AND SQSAFELY).  ONLY IF I/O ERRORS OCCUR  DURING  WRITTING
DIRECTORYS SHOULD FILES BE LOST WHEN SQUASHING SECURELY.


CNTRL/C TERMINATION

        AT  ANY  TIME  DURING  A SQUASH OPERATION A ↑C MAY BE TYPED TO
TERMINATE THE SQUASH.   WHEN  DETECTED,   THE  CURRENT  TRANSFER  IS

COMPLETED, AND THE REST OF THE DIRECTORY SYPONED DOWN CORRECTLY SO
THAT NO FILES ARE LOST.

```
****
* .SUBMIT *
****
```

COMPILE LEVEL COMMAND

SYNTAX: .SU [DEV:]<NAME[.EX]>

THE SUBMIT COMMAND IS USED TO PASS FILES TO HASP FOR BATCH
MODE OPERATION. THE DEFAULT DEVICE IS SYS AND THE DEFAULT
EXTENSION IS .BT SEE HASP DOCUMENTATION FOR FURTHER DESCRIPTION.

```
*********
* .MAKE *
* .TECO *
*********
```

COMPILE LEVEL COMMANDS

SYNTAX:
.TECO [IDEV:]<NAME[.EX]>[=ODEV]
.MAKE [DEV:]<NAME[.EX]>

THESE TWO COMMANDS ARE SIMILAR TO THE CREATE AND EDIT
COMMANDS EXCEPT THAT OS/8 TECO.SV IS CHAINED TO INSTEAD OF
EDIT.SV. FOR THE CASE OF THE MAKE COMMAND THE TECO MACRO

EWDEV: NAME.EX$Y$$

IS PASSED TO TECO. THE DEFAULT EXTENTION IS .PA AND THE DEFAULT
DEVICE IS DSK:. COMPIL MAKES A CHECK TO INSURE THAT A DUPLICATE
NAME DOES NOT EXIST. THE SYNTAX IS:

.MA [DEV:]<NAME>[.EX]

THE .TECO COMMAND IS A LITTLE MORE COMPLICATED WITH THE FOLLOWING
SYNTAX:

.TE [DEV:]<NAME>[.EX][=ODEV][/E]

IN ALL CASES THE DEFAULT DEV: IS DSK:. IF THE "=" CONSTRUCTION IS
NOT USED THEN AN EDIT BACKUP OCCURRS (EB), OTHERWISE AN

EWODEV: NAME.EX$ERDEV: NAME.EX$Y$$

-24-

IS THE EFFECTIVE MACRO. IF THE /E OPTION IS NOT SPECIFIED THEN
THE DEFAULT EXTENSION IS .PA AND ALL OF THE ABOVE IS TRUE. IF THE
/E OPTION IS SPECIFIED THEN THE DEFAULT EXTENSION IS .TE AND AN
EDIT BACKUP NEVER OCCURRS. IN ADDITION THE /E OPTION WILL EXECUTE
THE FIRST PAGE OF THE FILE AS A MACRO.   THE FOLLOWING ARE THE
EFFECTIVE MACROS:

```
     FOR
  .TE  NAME                EBNAME.PA$Y$$
  .TE NAME.EX              EBNAME.EX$Y$$
  .TE DEV: NAME.EX         EBDEV: NAME.EX$Y$$
  .TE DEV: NAME=ODEV       EWODEV: NAME.PA$ERDEV: NAME.PA$Y$$
  .TE NAME.EX/E            ERNAME.EX$Y HXA MA$$
  .TE NAME=ODEV/E          EWODEV: NAME.TE$ERNAME.TE$Y HXA MA$$
```

OS/8 TECO.SV REQUIRES A MODIFICATION TO ALLOW THESE COMMANDS TO
FUNCTION.

D E C S Y S T E M - 8

```
********
* .ZERO *
********
```

COMPILE LEVEL COMMAND

SYNTAX: .ZERO DEV:[/R]

        THE .ZERO COMMAND IS A NEW COMPILE LEVEL COMMAND, IMPLEMENTED
IN DECSYSTEM-8 VERSION 1.2. THIS COMMAND REPLACES THE /Z OPTION
IN PIP IN A MORE INTELLEGENT MANNER. THE COMMAND REQUIRES THAT   A
PARAMETER BLOCK BE ESTABLISHED ON THE DEVICE SPECIFIED, FROM WHICH
INFORMATION ABOUT DEVICE LENGTH AND START   OF FILE STORAGE IS
DERIVED.   (THE PROGRAM PARAM.SV IS USED TO CREATE PARAMETER
BLOCKS). THERE IS A " NO ZERO" PARAMETER IN THE BLOCK WHICH
AFFORDS SOME PROTECTION OF VALUABLE FILES.

        WHENEVER A DEVICE IS ZERO'ED, THE FIRST FOUR DIRECTORY BLOCKS
ARE SAVED IN THE UNUSED DIRECTORY BLOCKS. AS LONG AS NOTHING HAS
BEEN WRITTEN ON THE TAPE SINCE IT WAS ZERO'ED, THE OLD DIRECTORY
MAY BE RESTORED WITH THE /R OPTION. THE USER MUST REMEMBER THAT
ONLY 4 DIRECTORY SEGMENTS ARE RESTORED.   THUS   FILES   BEYOND
APPROXIMATELY 100 WILL NOT HAVE DIRECTORY ENTRIES. THUS WE HAVE THE

LOADING PROCEEDURES

THE SYSTEM MUST BE BUILT ONCE BY FOLLOWING THE DESCRIPTION "BUILDING OS/8 FROM PAPER TAPES" OR "CREATING OS/8 WITH BUILD" IN "INTRODUCTION TO PROGRAMMING - 1972" SUPPLIED BY DEC. THE ONLY CHANGE IS TO SUBSTITUTE PS8LGC.BN FOR THE TAPE DEC-S8-S8A-A-PB, AND HASPCD.BN FOR DEC-S8-OCMDA-A-PB. FROM THEN ON BUILD MAY BE USED TO COPY THE SYSTEM TO NEW SYSTEM DEVICES.

THIS TAPE CONTAINS A FILE CALLED DS8SYS.Y WHICH MAY BE USED TO CREATE DECSYSTEM-8 ON AN ALREADY OPERATING SYSTEM. IN THE FOLLOWING IT IS ASSUMED THAT THIS TAPE IS ON DTA1: AND THAT BUILD.SV IS SET UP FOR YOUR CONFIGURATION. THE FOLLOWING PROCEEDURE MAKES SURE THAT THE SYSTEM BOOTSTRAP IS CORRECT.

```
.RU DTA1:PIP
*SYS:/Y←DTA1:DS8SYS.Y/Y
* ↑C
.RU SYS:BUILD
$BOOT$
DSK=                    /WHATEVER YOU WISH
SYSTEM BUILT
.
```

THE DECSYSTEM-8 SYSTEM
MARK 1.2
TAPE #1

        THE DECSYSTEM-8 SYSTEM IS SUPPLIED ON THREE TAPES. TAPE
#1 CONTAINS ALL THE PROGRAMS NECESSARY TO RUN THE SYSTEM AND
THE DOCUMENTATION FILES. TAPE #2 CONTAINS THE SOURCES OF ALL
OF THE PROGRAMS ENCOMPASSED IN DECSYSTEM-8 WITH THE EXCLUSION
OF THE KEYBOARD MONITOR AND THE COMMAND DECODER. THESE
LATTER TWO FILES ARE CONTAINED ON TAPE #3, AS THE
DISTRIBUTION OF THESE MUST BE CONTROLLED. THE USER WILL NOTE
THAT NEITHER BUILD OR CONFIG ARE INCLUDED ON ANY TAPE, SO
THAT THE PURCHASE OF PS/8 OR OS/8 FROM DIGITAL IS REQUIRED
BEFORE DECSYSTEM-8 MAY BE BROUGHT UP.

        TAPE #1 IS AVAILABLE FROM DECUS. TAPE #1 AND TAPE #2
ARE AVAILABLE FROM THE AUTHORS. WE ASK THAT YOU SEND US AN
EXTRA DECTAPE WITH THE FIRST REQUEST, TO COVER HANDLING AND
INTERNAL SUPPORT PROBLEMS.   YOU WILL BE PLACED ON A
DISTRIBUTION LIST AND NOTIFIED WHEN NEW RELEASES ARE
AVAILABLE. AT THAT TIME YOU NEED ONLY SEND US A TAPE AND WE
WILL FORWARD THE NEW FILES ON IT. TAPE #3 MAY BE OBTAINED
VIA PROOF OF PURCHASE OF THE PS/8 SOURCES OF THE KEYBOARD
MONITOR AND COMMAND DECODER, (UNTIL SUCH TIME AS DIGITAL
ALLOWS US TO RELEASE THEM TO ANYONE).

THIS TAPE CONTAINS THE FOLLOWING FILES.

                        TAPE #1

    WRITE.UP   THIS FILE CONTAINS INFORMATION ABOUT HOW TO START
                    FINDING OUT ABOUT EVERYTHING.

    PS8LGC.BN   THIS IS THE MODIFIED VERSION OF THE PS/8 SYSTEM
                    PROGRAM WHICH REPLACES PS8.BN, OR OS/8
                    (DEC-S8-OOS8A-A-P).   NOTE THE ONE PAGE HANDLER FOR
                    RUN, GET, AND SAVE RESTRICTION. (TD8/E WILL NOT
                    WORK). BY JRC.

    CDHASP.BN   THIS REPLACES THE COMMAND DECODER TAPE CD.BN (OR
                    DEC-S8-OCMDA-A-P). BY JRC.

                        NOTE: THE   ABOVE   ARE   NOT MODIFIED
                        VERSIONS OF OS/8 BUT RATHER OF
                        PS8.002.II.

    ABSLDR.SV   THE SYSTEM ABSOLUTE LOADER (PS/8 ABSLDR). NOTE
                    THAT OS/8 ABSLDR WILL NOT WORK WITH DECSYSTEM-8.

COMPIL.PA   THIS CONTAINS THE MONITOR EXTENTIONS (CCL) FOR DECSYSTEM-8. FOR DECTAPE SYSTEMS THIS FILE SHOULD BE LOCATED AS CLOSE TO THE DIRECTORY BLOCKS AS POSSIBLE. CONTAINS CONDITIONAL ASSEMBLIES FOR THE F4 COMPILER AND KVEDIT. BY JRC. MODIFIED BY DEW AND JRC.

COMPIL.SV   IMAGE VERSION OF ABOVE.

DATE.SV   IMPLEMENTS LONG VERSION TYPEOUT OF DATE AND MESSAGE OF THE DAY WHEN CHAINED TO. BY JRC. MODS BY DEW.

DIRECT.SV   THIS CODING IMPLEMENTS THE DIRECTORY COMMAND BY HM. - ACCEPTED INTO DECSYSTEM-8 5/8/73 WITH MODIFICATIONS BY JRC -KV8/I ROUTINES BY JRC

KV8DIR.SV   AS ABOVE BUT WITH KV8/I ROUTINES.

DS8SYS.Y   THIS IS THE SYSTEMS PORTION OF DECSYSTEM-8 RETRIEVED WITH /Y FROM A DF32 SYSTEM. THE SYSTEM BOOTSTRAP WILL BE WRONG FOR OTHER SYSTEMS. SEE DS8LOD.HL FOR LOADING PROCEDURES.

DTA.SV   THIS IS THE PROGRAM TO DO AUTOMATIC DECTAPE ASSIGNMENTS FROM INTERNAL LABELS. THIS PROGRAM MUST BE NAMED AUTOAS.SV TO IMPLEMENT THE .AS COMMAND. BY JRC AND DEW.

LTA.SV   COPY OF ABOVE, FOR PDP-12 LINCTAPES. RENAME TO AUTOAS.SV FOR PDP-12 USERS.

EDIT12.SV   CHAINABLE EDITOR FOR THE PDP-12. USES THE SCOPE. DERIVED FROM DECUS 12-50. MODS BY JRC.

EDIT8.SV   CHAINABLE EDITOR FOR NON PDP-12 OWNERS. DECUS 12-50. MODS BY JRC.

FUTIL.SV   SYSTEM FILE UTILITY PROGRAM. SUMMERY IS IN FUTIL.HL. A COMPLETE WRITEUP MAY BE OBTAINED BY CONTACTING J. CRAPUCHETTES OR THE AUTORS. BY JC.

FOCFPS.SV   PS/8 FOCLF V.12/1/72 WITH CHAIN FOR .FOCAL COMMAND. FOCAL-10 COMPATIBLE. SEE DECUS FOR WRITUP. BY DEW.

FORT.SV   CHAINABLE OS/8 FORTRAN COMPILER. THIS MAY OR MAY NOT BE THE LATEST VERSION OF FORT.SV.

HASP.SV   BATCH CONTROLLER PROGRAM. BY JRC. MODS BY RJ, DEW, AND JRC.

KVEDIT.SV   EDIT FOR KV8/I USERS. MODS BY JRC

LOGKJ.SV   IMPLEMENTS LOGON, AND KJOB. RENAME TO LOG.SV TO
                IMPLEMENT LOGIN AND KJOB. BY JRC.

LOGOUT.SV   A SAMPLE PROGRAM FOR OUTPUTTING NICE COPY OF LOG.
                IS A FORTRAN PROGRAM.

PARAM.SV   THIS PROGRAM IS SELF DOCUMENTING AND IS USED TO
                ESTABLISH PARAMETER BLOCKS ON DECSYSTEM-8 DEVICES.
                THE MONITOR COMMANDS .ZERO, HD, AND SQUASH USE THE
                PARAMETER BLOCK. BY DEW.

PIP.SV   OS/8 V2 PIP WITH /S=10001 PATCH.

SABRC.SV   CHAINABLE SABR. NOTE THAT SABRC IS ONLY REQUIRED
                WHEN USING THE .SB OPTION IN THE .COMPILE COMMAND.
                SABR.SV IS REQUIRED WHEN USING FORT IN ANY CASE.
                THE MODIFICATION IS:

                 .GET SYS SABR
                 .ODT
                 201/XXXX 5200
                 207/XXXX 7000;7000;7000;7000
                 ↑C
                 .SA SYS:SABRC

SQUASH.SV   IMPLEMENTS THE SQUASH AND HD COMMANDS. BY DEW

TECO.SV   OS/8 TECO WITH PATCH FOR TECO AND MAKE COMMANDS.
                MODS BY DEW.

UMOUNT.SV   THIS IS CODING FOR IMPLEMENTATION OF THE FILE AND
                COPY COMMANDS. BY JRC. MODS BY DEW.

WRITUP.BT   THIS IS A HASP FILE FOR OBTAINING A COMPILETE COPY
                OF THE DOCUMENTATION. OUTPUT IS TO DEVICE LPT, SO
                ASSIGN LPT TO YOUR LISTING DEVICE BEFORE RUNNINING
                VIA ".SU WRITUP.BT".

XXXX.HL   THESE ARE VARIOUS HELP FILES DOCUMENTING THIS
                SYSTEM.

D E C S Y S T E M - 8

IMPLEMENTATION NOTES

MODIFICATIONS TO THE MAIN PS/8 MONITOR:

1. ADDITION OF THE LOGIN AND KJOB COMMANDS. ACCESS TO THE
SYSTEM IS PREVENTED UNTIL A LOGIN COMMAND IS ENTERED TO
MAKE AN ENTRY INTO THE SYSTEM LOG FILE. THE LOGGED-ON
STATUS IS RETAINED IN LOCATION 07777. ZERO MEANS THAT
NO ONE IS LOGGED-IN, AND ONLY THE LOGIN COMMAND IS
LEGAL IF THIS CONDITION IS TRUE.

2. MODIFICATION   TO   THE   CHAIN   PROCESSOR.   THE CHAIN
PROCESSOR HAS BEEN MODIFIED TO PREFORM THE SAME TEST
MADE BY THE R, RUN, AND GET COMMANDS AS TO THE VALIDITY
OF AN IMAGE FILE. THIS TEST IS NOT PERFECT, BUT IT
DOES PREVENT A CHAIN TO A FILE WHICH IS KNOWN TO BE
BAD. AN ATTEMPT TO CHAIN TO A BAD FILE, OR AN ERROR
READING THE SYSTEM DEVICE WILL PRODUCE THE MESSAGE
CHAIN ERR.

3. MODIFICATION OF THE ENTER ROUTINE IN THE USR.   THE
ENTER ROUTINE HAS BEEN MODIFIED TO ALLOW THE NEW ENTRY
TO CONTAIN A DATE OTHER THAN THE CURRENT SYSTEM DATE.
THIS IS USEFUL WHEN A FILE IS TRANSFERRED FROM ONE
DIRECTORY DEVICE TO ANOTHER WITH NO EDITING. IF, AFTER
LOCKING THE USR INTO CORE, ANY NON-ZERO ENTRY IS PLACED
INTO CELL 10070, THIS WILL BE USED AS THE DATE ENTRY
FOR THE NEW FILE.   THE ENTER ROUTINE RESETS THIS
LOCATION TO ZERO AFTER USING IT.

4. PROVISION FOR THE ADDITION OF FURTHER MONITOR COMMANDS.
WHENEVER THE USER ENTERS A COMMAND WHICH IS NOT IN THE
SET CONSISTING OF THE R, RUN, SAVE, START, DATE, ODT,
LOGIN, OR KJOB COMMANDS, THE MONITOR READS BLOCKS 1-2
OF THE FILE COMPIL.SV INTO CORE INTO LOCATIONS
00600-01577. THE CORE CONTROL BLOCK OF THIS FILE IS
TOTALLY IGNORED.   CONTROL IS THEN TRANSFERRED   TO
LOCATION 01002.   IF THE FILE COMPIL.SV IS NOT PRESENT
ON THE SYSTEM DEVICE, THE COMMAND WILL BE ECHOED
FOLLOWED BY A QUESTION MARK.   COMPILE CONTAINS THE
FACILITY FOR MONITOR COMMAND EXTENSIONS.STRUCTURE OF COM

1. OPERATION.
COMPIL RE-EXAMINES THE COMMAND STRING AND TAKES ACTION
FOR THOSE COMMANDS WHICH IT KNOWS ABOUT. IF A COMMAND
SHICH IS NOT LEGAL IS TYPED IN, THE MESSAGE
XXXXXXX-ILLEGAL COMMAND IS TYPED, IN ORDER TO
DIFFERENTIATE BETWEEN AN ACTUAL ERROR AND THE CONDITION
WHEN COMPIL.SV IS NOT ON THE SYSTEM.   THE CODE TO
PROCESS A COMMAND MAY BE IN ONE OF THREE PLACES:

    A. THE FIRST FOUR PAGES OF THE FILE, WHICH

ARE NOW IN CORE.
B. FURTHER OUT IN THE FILE COMPIL.SV.
C. IN ANOTHER PROGRAM ON THE SYSTEM, WHICH
    MAY BE CHAINED TO BY COMPIL

2. STANDARD ROUTINES.
    COMPIL.SV   IS   DEPENDENT   UPON SEVERAL   ROUTINES   AND
    LOCATIONS IN THE MAIN ASSEMBLY OF PS/8.   THESE   ARE
    SPECIFIED BY DEFINES   AT   THE BEGINNING OF THE ASCII
    FILE. ALSO THE PROGRAM UMOUNT, WHICH IS USED BY THE
    FILE COMMAND, USES ROUTINES BOTH IN THE MAIN PS/8
    ASSEMBLY AND IN COMPIL. IF COMPIL IS CHANGED BY THE
    USER, ASSEMBLY ERRORS WILL RESULT IF   THE   COMPIL
    ROUTINES REFERENCED BY UMOUNT CHANGE LOCATION. IT IS
    THEN NECESSARY TO REDEFINE REFERENCES IN UMOUNT AND
    REASSEMBLE IT.

D E C S Y S T E M - 8

NOTES AND SUGGESTIONS

    IT   WOULD BE HIGHLY DESIREABLE TO HAVE A NEW LOG ROUTINE WHICH
DID AN IN-PLACE UPDATE OF SYSLOG.DA WITH COPYING OF THIS FILE INTO
ANOTHER ONLY WHEN FULL.   THUS THE FILE SYSLOG.DA MAY BE LOCATED
NEAR THE SYSTEM PART OF A DECTAPE AND MUCH SPINNING TIME WOULD BE
SAVED. IF YOU HAVE THE TIME AND INCLINATION ... GOOD LUCK!!!!

FURTHER WORK NEEDS   TO   BE   DONE   WITH   REGARD   TO   FUTHER
IMPLEMENTATIONS USING THE PARAMETER BLOCK. MAINLY A REPLACEMENT
FOR PIP'S /Y OPTION.

D E C S Y S T E M - 8

IMPLIED RULES REGARDING DISTRIBUTION

THE EXISTENCE OF THIS TAPE MUST IMPLY CERTAIN OBLIGATIONS ON
THE PART OF PERSONS RECEIVING IT. THIS IS AN EXPERIMENTAL METHOD
FOR MAKING THE USER COMMUNITY STRONGER AND IMPROVE COMMUNICATIONS.
DISTRIBUTION WILL INITIALLY BE ON AN INDIVIDUAL BASIS UNTIL THERE
ARE TOO MANY USERS. WHENEVER A TAPE IS SENT TO DOUG WREGE AN
UPDATED VERSION BE RETURNED. RELEASES WILL BE ON AN APPROXIMATELY
TWO MONTH BASIS. WHEN REQUESTORS EXCEED A REASONABLE NUMBER TAPES
WILL BE ISSUED ON A ROUND ROBBIN BASIS (THUS THE FOLLOWING RULES).
YOU ARE GETTING SOMETHING FOR NOTHING SO PLEASE ADHERE STRICTLY TO
THESE RULES.

1. APPLICABLE FOR ROUND-ROBIN UNDER   NO   CIRCUMSTANCES
   SHOULD THIS TAPE BE MODIFIED OR EVEN WRITE-ENABLED.
   ALTHOUGH YOU THINK THAT SOMETHING IS "GROOVY", IT MAY
   DO SOMETHING THAT ANOTHER USER IS UNINTERESTED IN, OR
   HAVE UNKNOWN BUGGS. IF "KLUGES" CREEP INTO THIS
   SYSTEM, OTHER USERS MAY THINK THAT DECSYSTEM-8 IS
   MARGINAL IN OPERATION, RESULTING IN THE DEATH OF A GOOD
   THING.

2. APPLICABLE FOR ROUND-ROBIN THERE IS A LIST OF ADDRESS
   AT THE END OF THIS WRITEUP. YOU MAY COPY THIS TAPE AND
   THEN SEND IT ON TO THE PERSON FOLLOWING YOUR NAME (THE
   LAST PERSON SHOULD RETURN IT TO THE FIRST). YOU SHOULD
   NOT HOLD ON TO THIS TAPE FOR MORE THAN TWO DAYS.

3. IF YOUR NAME IS NOT ON THE LIST, SEND TWO TAPES(MARKED)
   TO DOUG WREGE OR JOHN COVERT REQUESTING THAT YOU BE
   ADDED. THIS WILL ENTITLE YOU TO DECSYSTEM-8 UPDATES
   FOR AS LONG AS THIS USER SUPPORT GROUP IS OPERATING.
   ONE WILL BE RETURNED WITH THE LATEST DECSYSTEM-8.
   PLEASE INDICATE WHETHER YOU WISH TO RECEIVE A DECTAPE
   OR LINCTAPE.

3. AS SOME OF THE ORIGINAL CODING (BEFORE MODIFICATION) OF
   DECSYSTEM-8 IS COPYWRITED BY DEC AND BECAUSE THIS IS A
   DEC USERS GROUP, INFORMATION CONTAINED ON THIS TAPE IS
   TO BE RESTRICTED TO END USERS OF DEC FAMILY-OF-8
   COMPUTERS. I AM SURE YOU UNDERSTAND THE REASON FOR
   THIS RESTRICTION, AND WHO WE ARE TALKING ABOUT.

4. IF YOU HAVE SUGGESTIONS, ADDITIONS, OR MODIFICATIONS
   YOU DEEM WORTHY OF INCLUDING ON THIS TAPE,   THE
   FOLLOWING STATEMENTS APPLY:

      A. SEND SUGGESTIONS OR ADDITIONS, ON A TAPE, TO
         DOUG WREGE OR JOHN COVERT. IN THIS WAY THEY
         MAY BE ADDED TO THE MASTER TAPES (THERE ARE
         MORE THAN ONE). ALL ADDITIONS TO

DECSYSTEM-8 WILL BE REVIEWED BEFORE
ACCEPTANCE.

B. MODIFICATIONS OF SOURCES SHOULD BE
IMPLEMENTED WITH CONDITIONAL ASSEMBLY
PARAMETERS SUCH THAT WITH PROPER DEFINITIONS
THE NEW MODIFICATION MAY BE INCLUDED. THE
OMITTION OF THE DEFINITIONS SHOULD LEAVE THE
BINARY INVIOLATE. THIS WILL ALLOW SELECTION
OF FEATURES BY USERS.

C. ALL CHANGES MUST BE WELL DOCUMENTED.

D. IF THE CHANGE YOU WISH TO MAKE CANNOT BE
DONE WITH CONDITIONAL ASSEMBLIES, NOTE THAT
ACCORDINGLY. YOUR WORK WILL BE REVIEWED TO
SEE IF IT SHOULD BECOME A STANDARD PART OF
DECSYSTEM-8.

E. OFFICIALLY ACCEPTED DECSYSTEM-8 ADDITIONS
MUST BE SUPPLIED IN SOURCE FORM AND USERS
MUST BE ABLE TO MODIFY THEM IF SO INCLINED.
THIS IS AN OPEN- SHOP SYSTEM WITH ALL
SOURCES AVAILABLE. OTHERWISE SUBMIT TO
DECUS.

5. IT MAY SEEM THAT THE ABOVE RULES RESTRICT FREEDOM OF
THE USERS, BUT EXPERIENCE SHOWS THAT NOT ALL USERS ARE
AS KNOWLEDGABLE AS THEY MAY CONSIDER THEMSELVES.

6. ANYONE FOUND IN VIOLATION OF THE ABOVE RULES WILL BE
REMOVED FROM THE DISTRIBUTION LIST.

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TO THOSE RECIEVING THIS TAPE FROM DECUS:

   THIS   DOCUMENTATION   FILE   IS   IDENTICAL TO THE ONE
WHICH IS CIRCULATED AMONG DECSYSTEM-8 USERS WITH THE
EXCEPTION OF THE DISTRIBUTION LIST WHICH IS MUCH MORE
EXTENSIVE. TO GET ON THE LIST SEE DISTRIBUTION RULES.
YOU NEED NOT SEND THIS TAPE ANYWHERE.

ABOUT DS8CCL.PA

THE SOURCE OF DS8CCL CONTAINS MANY CONDITIONAL
ASSEMBLY PARAMETERS TO SELECT VARIOUS FEATURES OF DECSYSTEM-8.
TO OBTAIN INFORMATION ABOUT THEM LIST THE FIRST FEW PAGES
OF THE SOURCE. THEN MAKE A DEFINITIONS FILE TO PRECEED
THE SOURCE AT ASSEMBLY TIME WITH THOSE FEATURES THAT YOU DESIRE.

LOADING INFORMATION

```
CCL        .COM DS8CCL.DF,DS8CCL/L
           .SA SYS CCL=2003;12001

SQUASH     .LOAD SQUASH=3000(89)
           .SA SYS SQUASH

AUTOAS     .LOAD AUTOAS=12000(89)
           .SA SYS AUTOAS

DATE       .LOAD DATE=12000(89)
           .SA SYS DATE

PARAM      .LOAD PARAM=2000(9)
           .SA SYS PARAM

HASPV3     .LOAD HASPV3(9)
           .SA SYS HASPV3
```
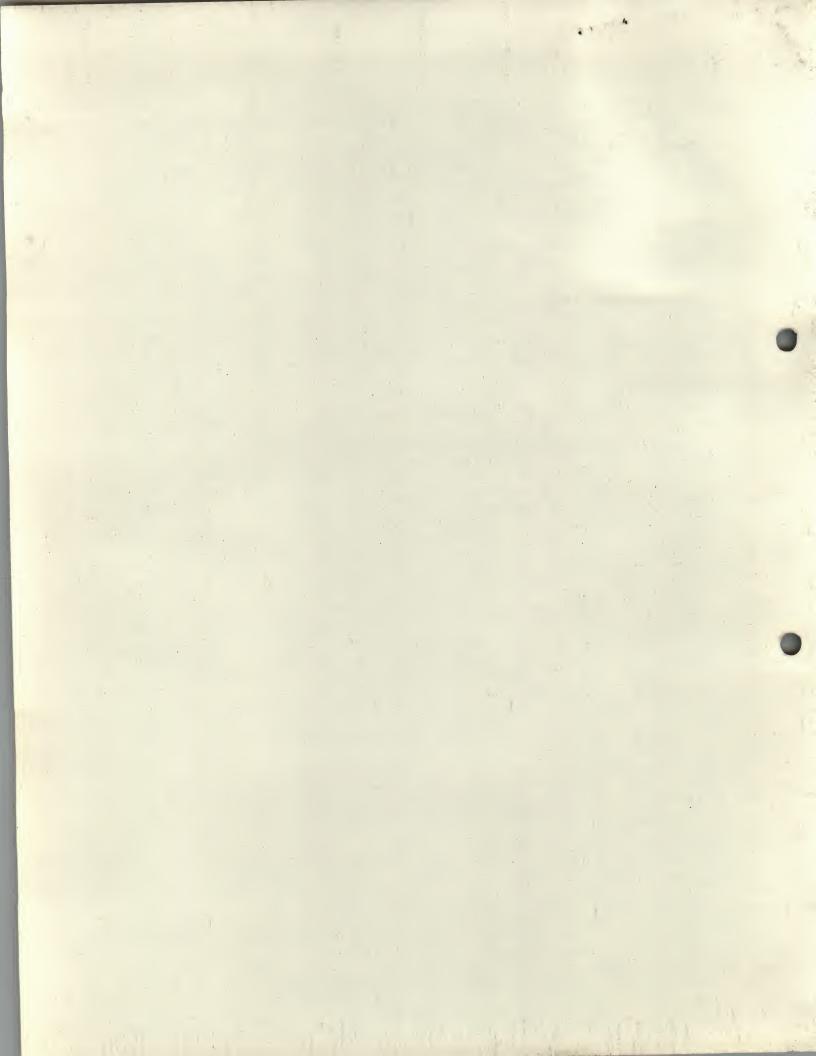
DECSYSTEM-8 CCL ADDITIONS

THE FOLLOWING COMMANDS HAVE BEEN ADDED TO OS/8 V3:

```
.AS              AUTOASSIGN
.AS UDEV         DOES NOT REMOVE USERNAME ASSIGNMENT.
.DE UDEV         REMOVES ONLY SINGLE USERNAME ASSIGN.

.FILE F[ROM] DEV: NM1,NM2      SUBSET OF "COPY".
.FILE R[ECALL] DEV: NM1,NM2    SUBSET OF "COPY".

.HD[EV] DEV:  "HOW'S THE DEVICE"

.MES[SAGE]    TYPES FILE "MESSAG.DY".

.SQUASH       SMART DEVICE PACKING.
.SQ [ODEV:[<IDEV: ][ USING UDEV: ][UNTIL NNN][ SAVE N][ WAIT]

.ZERO DEV:    ZERO'S DEVICES USING PARAMETER BLOCK.
.ZERO DEV: /R    RESTORE LAST DIRECTORY.
.ZERO DEV: /O    OVERRIDING PARAMTER BLOCK.
```

THE LONG FORM "DATE" COMMAND CODING WAS REMOVED WITH
CHAIN TO "DATE.SV" REPLACING IT.

SYSTEM PROGRAMS REQUIRED FOR ABOVE:

```
CCL.SV           DERIVED FROM DS8CCL.PA
SQUASH.SV
DATE.SV
AUTOAS.SV        AVAILABLE IN LINCTAPE AND
                 TC08 DECTAPE VERSIONS.
PARAM.SV         ESTABLISHES PARAMETER BLOCKS ON DEVICES
HASPV3.SV        AN 8K INVISIBLE "PSEUDO-BATCH".
                 DS8CCL CONDITIONAL ASSEMBLY
                 PARAMETER "HASPON=1" REQUIRED.
```